



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Cheng-Lien Chiang
Assignee: Bridge Semiconductor Corporation
Title: OPTOELECTRONIC SEMICONDUCTOR PACKAGE DEVICE
Serial No.: 10/082,500 Filed: February 25, 2002
Examiner: Chu, C. Group Art Unit: 2815
Atty. Docket No.: BDG005-3

COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

**PETITION FOR WITHDRAWAL OF DRAWING OBJECTION
FOR IMPROPER REFERENCE CHARACTERS**

Dear Sir:

This Petition is filed under 37 C.F.R. § 1.181 to request that the outstanding requirement to correct the reference characters under 37 C.F.R. § 1.84(p)(4) be withdrawn.

I. FACTS

The captioned-application discloses an optoelectronic semiconductor package device and its method of manufacture.

The method includes providing semiconductor chip 110 that includes upper surface 112 and lower surface 114, where upper surface 112 includes light sensitive cell 115 and conductive pads 116 (Specification, page 8, lines 5-11 and Figs. 1A and 1B), providing metal base 120 that includes surfaces 122 and 124, central portion 126, slots 128, recessed portions 132 and 134, non-recessed portions 136 and leads 138 (Specification, page 9, lines 8-17 and Figs. 2A and 2B),

forming metal traces 144 on metal base 120, where conductive traces 150 include leads 138 and metal traces 144 (Specification, page 11, lines 6-11 and Figs. 3A and 3B), forming transparent adhesive 154 on metal base 120 and metal traces 144 (Specification, page 12, lines 21-22 and Figs. 4A and 4B), mechanically attaching chip 110 to metal base 120 using transparent adhesive 154 (Specification, page 13, lines 5-6 and Figs. 5A and 5B), forming encapsulant 156 on chip 110 and metal base 120, where encapsulant 156 includes bottom surface 160, peripheral side surfaces 162, top surface 164 and peripheral portion 166 (Specification, page 14, lines 3-4 and page 14, line 30 to page 15, line 1 and Figs. 6A and 6B), removing encapsulant 156 from laterally extending portions of slots 128 (Specification, page 15, lines 22-23 and Figs. 7A and 7B), forming protective coating 170 on metal base 120 outside encapsulant 156 (Specification, page 16, lines 9-10 and Figs. 8A and 8B), removing central portion 126 of metal base 120, thereby exposing metal traces 144 and transparent adhesive 154 (Specification, page 17, lines 7-8 and 12-13 and Figs. 9A and 9B), forming openings 176 in transparent adhesive 154 that expose pads 116 (Specification, page 18, lines 7-9 and Figs. 10A and 10B), forming connection joints 180 in openings 176 that contact and electrically connect pads 116 and metal traces 144 (Specification, page 18, line 28 to page 19, line 2 and Figs. 11A and 11B), forming transparent base 182 on the structure, where encapsulant 156 and transparent base 182 in combination form insulative housing 184 that surrounds and encapsulates chip 110 (Specification, page 20, lines 3-4 and 20-21 and Figs. 12A and 12B), singulating optoelectronic device 186 from the lead frame (Specification, page 21, lines 1-2 and 6-7 and Figs. 13A and 13B), and bending leads 138 (Specification, page 21, lines 18-20 and Figs. 14A and 14B).

The Office Action dated April 10, 2003 objects to the drawings under 37 C.F.R. § 1.84(p)(4) due to improper reference characters. In particular, (1) reference character 132 in Fig. 2A has been used to designate both the recessed and non-recessed portion, (2) reference characters 138 and 156 in Fig. 6B have both been used to designate leads, (3) reference characters 164 and 166 in Fig. 12C have both been used to designate top surfaces, and (4) reference characters 184 and 186 in Fig. 13A have both been used to designate the device.

The Response dated April 24, 2003 requested that these objections be withdrawn. In addition, the Submission Of Proposed Drawing Amendment For Approval By Examiner filed therewith proposed (1) relocating reference character 132 so that the lead line does not overlap the non-recessed portion in Fig. 2A (to address the first objection), and (2) reference character 156 point to encapsulant 156 in Fig. 6B (to address the second objection).

The Office Action dated July 31, 2003 approved the proposed drawing amendment but maintained the objections with minor revisions. In particular, (1) reference character 132 in Fig. 2A and Fig. 2[B] has been used to designate both the recessed and non-recessed portions, (2) reference characters 156 and 166 in Fig. 6B have both been used to designate leads, (3) reference characters 164 and 166 in Fig. 12C have both been used to designate top surfaces, and (4) reference characters 184 and 186 in Fig. 13A have both been used to designate the device.

II. ARGUMENT

Reference Character 132 in Figs. 2A and 2B (First Objection)

The Examiner asserts that reference character 132 in Fig. 2A (and apparently in Fig. 2B) has been used to designate both the recessed and non-recessed portion. This is clearly erroneous. Reference character 132 in Figs. 2A and 2B designates the recessed portion. Furthermore, the Submission Of Proposed Drawing Amendment For Approval By Examiner, which was subsequently approved, proposes relocating reference character 132 in Fig. 2A so that the lead line does not overlap non-recessed portion 136.

Unfortunately, the Examiner has not even attempted to explain how reference character 132 designates the non-recessed portion in Figs. 2A and 2B, or how Figs. 2A and 2B could be amended so that reference character 132 more clearly designates the recessed portion rather than the non-recessed portion, or why this is necessary given that reference character 132 already designates the recessed portion.

Reference Characters 156 and 166 in Fig. 6B (Second Objection)

The Examiner initially asserts that reference characters 138 and 156 in Fig. 6B have both been used to designate leads. Applicant acknowledges that reference character 156 in Fig. 6B designates lead 138 rather than encapsulant 156. The Submission Of Proposed Drawing Amendment For Approval By Examiner, which was subsequently approved, proposes that reference character 156 designate encapsulant 156 rather than lead 138 in Fig. 6B.

The Examiner now asserts that reference characters 156 and 166 in Fig. 6B have both been used to designate leads. This is clearly erroneous. Reference characters 156 and 166 designate the encapsulant and its peripheral portion rather than the lead in Fig. 6B.

Unfortunately, the Examiner has not even attempted to explain how reference characters 156 and 166 designate lead 138 in Fig. 6B, or how Fig. 6B could be amended so that reference characters 156 and 166 more clearly designate the encapsulant and its peripheral portion rather than the lead, or why this is necessary given that reference characters 156 and 166 already designate the encapsulant and its peripheral portion.

Reference Characters 164 and 166 in Fig. 12C (Third Objection)

The Examiner asserts that reference characters 164 and 166 in Fig. 12C have both been used to designate top surfaces. This is clearly erroneous. Encapsulant 156 includes bottom surface 160, four peripheral side surfaces 162, top surface 164, and peripheral portion 166 which provides a rectangular peripheral ledge that protrudes above transparent base 182 in Fig. 12C. Insulative housing 184 includes top surface 164 formed by peripheral portion 166 and transparent base 182 in Fig. 12C. Thus, top surface 164 differs from peripheral portion 166, and reference characters 164 and 166 designate different features.

Unfortunately, the Examiner has not even attempted to explain how Fig. 12C could be amended so that reference characters 164 and 166 more clearly designate the top surface and the peripheral portion, or why this is necessary given that reference characters 164 and 166 already designate the top surface and the peripheral portion.

Reference Characters 184 and 186 in Fig. 13A (Fourth Objection)

The Examiner asserts reference characters 184 and 186 in Fig. 13A have both been used to designate the device. This is clearly erroneous. Insulative housing 184 includes encapsulant 156 and transparent base 182. Device 186 includes chip 110, conductive traces 150, transparent adhesive 154, connection joints 180 and insulative housing 184. Thus, insulative housing 184 differs from device 186, and reference characters 184 and 186 designate different features.

Unfortunately, the Examiner has not even attempted to explain how Fig. 13A could be amended so that reference characters 184 and 186 more clearly designate the insulative housing and the device, or why this is necessary given that reference characters 184 and 186 already designate the insulative housing and the device.

Conclusion

37 C.F.R. § 1.84(p)(4) states as follows:

The same part of an invention appearing in more than one view of the drawing must always be designated by the same reference character, and the same reference character must never be used to designate different parts.

Reference character 132 in Figs. 2A and 2B always designates the recessed portion of the lead and never designates another feature, regardless of whether the lead includes recessed and non-recessed portions.

Reference character 156 in Fig. 6B (as amended) always designates the encapsulant and never designates another feature, regardless of whether the encapsulant includes a top surface, peripheral side surface, bottom surface and peripheral portion.

Reference character 166 in Fig. 6B always designates the peripheral portion of the encapsulant and never designates another feature, regardless of whether the encapsulant includes a top surface, peripheral side surface, bottom surface and peripheral portion.

Reference character 166 in Fig. 12C always designates the peripheral portion of the encapsulant and never designates another feature, regardless of whether the encapsulant includes a top surface, peripheral side surface, bottom surface and peripheral portion.

Reference character 184 in Fig. 13A always designates the insulative housing and never designates another feature, regardless of whether the device includes a chip, conductive trace, transparent adhesive, connection joint and insulative housing.

Reference character 132 does not point to non-recessed portion 136 in Figs. 2A and 2B, and reference characters 156 and 166 do not point to lead 138 in Fig. 6B. Although reference character 166 points to top surface 164 in Fig. 12C, this is fine since top surface 164 includes peripheral portion 166 and does not suggest that reference character 166 designates top surface 164. Likewise, although reference character 184 points to device 186 in Fig. 13A, this is fine since device 186 includes insulative housing 184 and does not suggest that reference character 184 designates device 186.

Therefore, Applicant requests that these objections be withdrawn.

Please charge any fee due under this Petition to Deposit Account No. 502178/BDG005-3.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 18, 2003.



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8/18/03
Date of Signature

Respectfully submitted,



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